

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
	:	Examiner: Victor S. Chang
YOUNGER AHLUWALIA et al.)	
	:	Group Art Unit: 1771
Application No.: 10/766,649)	
	:	
Filed: January 27, 2004)	
	:	
For: COMPOSITE MATERIALS)	

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF MATTI KIIK UNDER 37 C.F.R. § 1.132

Sir:

1. I, Matti Kiik, am a citizen of the United States of America, and am more than twenty-one years of age. I hereby declare as follows:
2. I presently hold the position of Senior Vice President of Research and Development and Chief Technology Officer of GAF-ELK, Dallas, TX, and have held this position for about five months. Prior to that, I held the position of Senior Vice President of Research and Development of ElkCorp for about five years.
3. I am a co-inventor of U.S. Patent Application No. 10/766,649 (hereinafter "the '649 application").
4. The purpose of this declaration is to address the obviousness rejection of the claims currently pending and under consideration in the '649 application; this rejection is

recited in the United States Patent Office Communication, dated October 2, 2006 (hereinafter “the final Office Action”).

5. I have reviewed and am familiar with the final Office Action, as well as the currently pending claims of the ‘649 application.

6. I have also reviewed and am familiar with the United States Patent Office Communication, dated January 10, 2007 (hereinafter “the Advisory Action”).

7. I am familiar with the art cited in the final Office Action and in the Advisory Action (*i.e.*, U.S. Patent 6,365,533 (hereinafter “Horner Jr. et al.”; Exhibit A) and U.S. Patent 6,093,481 (hereinafter “Lynn et al.”; Exhibit B), and U.S. Patent No. 3,062,682 (hereinafter “Morgan et al.”; Exhibit C).

8. From reviewing the final Office Action and the Advisory Action, it is my understanding that the Examiner believes that the combined teachings of Horner et al., Lynn et al. and Morgan et al. render the present invention obvious, motivated by the desire to obtain an improved insulation value.

9. From reviewing Horner et al., it is apparent that one of Horner et al.’s objectives is to provide a mechanically stable facer suitable for insulation board manufacture which resists cold temperature delamination. In order to achieve that objective, Horner et al. indicate that aluminum foil should not be placed between the facer member and the foam core and that aluminum foil should not be placed on the surface of the facer member. My opinion is substantiated below.

10. Horner et al. disclose that in order to produce an insulation board that is resistance to cold temperature delamination, it is crucial that the uncoated fibrous surface of the facer member (i.e., the fiber surface of the mat) be in direct contact with the core material; the direct contact between the facer member and the core material is crucial to result in an enhanced bonding strength between the facer member and the core material. This teaching can be found in Horner et al.'s disclosure, for example, in column 4, lines 19-26, where Horner et al. state that the uncoated fiber surface of the mat contacts at least one exposed surface of a formed thermosetting non-elastomeric core. (Emphasis added). Further, Horner et al. state that the bonding strength between the uncoated fibers and the core material in the resulting product is enhanced due to reduced penetration of the coating mixture into the mat by reason of its prefoamed state. *See* Horner et al., col. 5, lines 4-8 (emphasis added). Finally, Horner et al. also teach that if the foam of the facer is completely cured before entering the laminator, the core material is either poured onto the uncoated fibrous surface of the facer or laminated thereto with adhesive or bonding agent. *See* Horner et al., col. 5, lines 8-12 (emphasis added).

11. Horner et al. further indicate that the facer members of the invention are advantageous to prior art heat retaining members (e.g., aluminum foil - *see* col. 2, lines 21-23) because the facer members have the advantage of lowering the lamination cure time and prolonging the generation of heat by acting as insulators in the post cure stack (*see* col. 4, lines 62-67). This advantage is considered by Horner et al. to "eliminate[s] the need for heat retaining members at the top and bottom of the stack and significantly reduce the prior problem of the board's susceptibility to cold temperature delamination." (*See* col. 4, line 67, through col. 5, lines 1-4).

12. Horner et al. further indicate that other facers may be used in combination with the facer members of the invention and that such facers may be aluminum foil. (*See* col. 5, line 62 through col. 6, lines 3-13). Importantly however, and consistent with all the

other teaching in Horner et al. which clearly indicates that aluminum should not be in contact with the facer members, when more than one facer is used, Horner et al. specifically indicate that the facer member should be placed on one side of the foam core of the insulation board and the other facer, e.g., aluminum foil, should be placed on the other side. *Id.*

13. Based on the foregoing disclosure of Horner et al., it is my opinion that the skilled artisan would conclude that aluminum foil should not be put into contact with the facer member of Horner et al.

14. Lynn et al. also disclose a facing composites for use in fabricating insulation boards. Similar to Horner et al., Lynn et al. indicate that the facing composites may include facing sheets that are adhered to at least one major surface of a rigid foam insulation board. *See* col. 2, lines 16-18. The facing composites include combinations of facing sheets and the facing sheets are, for example, a polymeric layer, fibrous materials, metal sheets, films or plastics. *See* col. 2, lines 32-37. The metal sheets may be in contact with the rigid foam insulation board or may be externally provided. *See* Figures 2-4, layers 17, 18, 23, 24, 28 and 32.

15. While Lynn et al. show that metal sheets may be included in the disclosed facing composites either at the surface of the insulation board or as the outer-most surface of the facing composite, there is nothing in Lynn et al. that suggests that the facing member of Horner et al. can be included in the facing composites. More importantly, Horner et al. specifically indicate that metal sheets should not be placed between the facer member and the insulation board or at the surface of the facer member at the top and bottom of the stack. Thus, a person skilled in making facing sheets would never combine Lynn et al. and Horner et al. in such a way to make the claimed invention. At best, the person skilled in making facing sheets might

include a facing composite of Lynn et al. on one side of an insulation board and the facer member of Horner et al. on the other side.

16. It is further my opinion that there is nothing in Morgan et al. that would motivate a person skilled in making facing members to put the facer member of Horner et al. in contact with aluminum foil.

17. I declare that all statements made herein are, to my knowledge, true, and that all such statements are based on information I believe to be true.

18. I further declare that these statements are made with the knowledge that willful false statements are punishable by fine or imprisonment or both, under Title 18, Section 1001, of the United States Code, and that such willful false statements may jeopardize the validity of the instant application and any patent issued thereupon.

8/10/07
Date

Respectfully submitted,

M. Kiik
Matti Kiik